(FILE 'HOME' ENTERED AT 12:20:33 ON 26 SEP 2001)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFULL, JAPIO' ENTERED AT 12:21:01 ON 26 SEP 2001 1269 S R6K AND PLASMID L1L2 117 S L1 AND PIR GENE 82 S L2 AND ESCHERICHIA COLI L3 77 S L3 AND REPLICATION L4 L50 S L4 AND TRANSFER GENE? L6 0 S L4 AND F GENE => d ibib 14 1-77 ANSWER 1 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS T.4 ACCESSION NUMBER: 1995:292227 BIOSIS DOCUMENT NUMBER: PREV199598306527 TITLE: Removal of dam methylation stimulates plasmid R6K gamma origin replication: Regulation by pir gene expression. AUTHOR(S): Scott, David L.; Clark, Clarence W. Morehouse Coll., Atlanta, GA 30314 USA CORPORATE SOURCE: Abstracts of the General Meeting of the American Society SOURCE: for Microbiology, (1995) Vol. 95, No. 0, pp. 514. Meeting Info.: 95th General Meeting of the American Society for Microbiology Washington, D.C., USA May 21-25, 1995 ISSN: 1060-2011. DOCUMENT TYPE: Conference LANGUAGE: English L4 ANSWER 2 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS ACCESSION NUMBER: 1995:26219 BIOSIS DOCUMENT NUMBER: PREV199598040519 TITLE: Cooperative binding of initiator protein to replication origin conferred by single amino acid substitution. AUTHOR(S): Filutowicz, Marcin (1); York, Dona; Levchenko, Igor CORPORATE SOURCE: (1) Dep. Bacteriol., Univ. Wisconsin, Madison, WI 53706 USA SOURCE: Nucleic Acids Research, (1994) Vol. 22, No. 20, pp. 4211-4215. ISSN: 0305-1048. DOCUMENT TYPE: Article LANGUAGE: English ANSWER 3 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS L4 ACCESSION NUMBER: 1995:20145 BIOSIS DOCUMENT NUMBER: PREV199598034445 TITLE: Binding of DnaA protein to a replication enhancer counteracts the inhibition of plasmid R6K gamma origin replication mediated by elevated levels of R6K pi protein. AUTHOR(S): Wu, Frank; Levchenko, Igor; Filutowicz, Marcin (1) CORPORATE SOURCE: (1) Dep. Bacteriol., E.B. Fred Hall, Univ. Wis.-Madison, 1550 Linden Drive, Madison, WI 53706 USA SOURCE: Journal of Bacteriology, (1994) Vol. 176, No. 22, pp. 6795-6801. ISSN: 0021-9193. DOCUMENT TYPE: Article LANGUAGE: English T.4 ANSWER 4 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS ACCESSION NUMBER: 1994:176709 BIOSIS DOCUMENT NUMBER: PREV199497189709 TITLE: Use of the rep technique for allele replacement to construct new Escherichia coli hosts

for maintenance of **R6K-**gamma origin plasmids at different copy numbers. AUTHOR(S): Metcalf, William W.; Jiang, Weihong; Wanner, Barry L. (1) CORPORATE SOURCE: (1) Dep. Biol. Sci., Purdue Univ., West Lafayette, IN 47907 USA SOURCE: Gene (Amsterdam), (1994) Vol. 138, No. 1-2, pp. 1-7. ISSN: 0378-1119. DOCUMENT TYPE: Article LANGUAGE: English L4ANSWER 5 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS ACCESSION NUMBER: 1993:581547 BIOSIS DOCUMENT NUMBER: PREV199497000917 TITLE: Autoregulation-deficient mutant of the plasmid R6K-encoded pi protein distinguishes between palindromic and nonpalindromic binding sites. AUTHOR(S): York, Dona; Filutowicz, Marcin (1) CORPORATE SOURCE: (1) Dep. Bacteriology, E.B. Fred Hall, 1550 Linden Dr., Univ. Wisconsin, Madison, WI 53706 USA SOURCE: Journal of Biological Chemistry, (1993) Vol. 268, No. 29, pp. 21854-21861. ISSN: 0021-9258. DOCUMENT TYPE: Article LANGUAGE: English L4 BIOSIS COPYRIGHT 2001 BIOSIS ANSWER 6 OF 77 ACCESSION NUMBER: 1993:228209 BIOSIS DOCUMENT NUMBER: PREV199395119384 TITLE: New suicide vector for gene replacement in yersiniae and other gram-negative bacteria. AUTHOR(S): Skrzypek, Elzbieta; Haddix, Pryce L.; Plano, Gregory V.; Straley, Susan C. (1) (1) Dep. Microbiology Immunology, Chandler Med. Center, CORPORATE SOURCE: Univ. Kentucky, Lexington, Kentucky 40536-0084 SOURCE: Plasmid, (1993) Vol. 29, No. 2, pp. 160-163. ISSN: 0147-619X. DOCUMENT TYPE: Article LANGUAGE: English L4 ANSWER 7 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS ACCESSION NUMBER: 1993:94510 BIOSIS DOCUMENT NUMBER: PREV199395049706 TITLE: A small **plasmid** for recombination-based screening. AUTHOR(S): Hanzlik, Andrzej J.; Osemlak-Hanzlik, Malgorzata M.; Kurnit, David M. (1) CORPORATE SOURCE: (1) Howard Hughes Med. Inst., Univ. Mich. Med. Cent., 1150 W. Medical Center Dr., Ann Arbor, Mich. 48109-0650 SOURCE: Gene (Amsterdam), (1992) Vol. 122, No. 1, pp. 171-174. ISSN: 0378-1119. DOCUMENT TYPE: Article LANGUAGE: English T.4 ANSWER 8 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS ACCESSION NUMBER: 1992:272518 BIOSIS DOCUMENT NUMBER: BR42:131468 TITLE: MULTIPLE TRANSLATIONAL OPTIONS FOR THE PIR GENE WHICH ENCODES PI THE REPLICATION INITIATOR PROTEIN OF PLASMID R6K. AUTHOR(S): YORK D; HOFFMAN J; GAN J; FILUTOWICZ M CORPORATE SOURCE: DEP. BACTERIOL., UNIV. WISCONSIN, MADISON, WIS. 53706. SOURCE: KEYSTONE SYMPOSIUM ON MOLECULAR MECHANISMS IN DNA REPLICATION AND RECOMBINATION, TAOS, NEW MEXICO, USA, JANUARY 25-FEBRUARY 1, 1992. J CELL BIOCHEM SUPPL, (1992) 0

(16 PART B), 56. CODEN: JCBSD7. DOCUMENT TYPE: Conference FILE SEGMENT: BR; OLD LANGUAGE: English T.4 ANSWER 9 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS ACCESSION NUMBER: 1992:239261 BIOSIS DOCUMENT NUMBER: BA93:127286 TITLE: ROLES OF A 106-BP ORIGIN ENHANCER AND ESCHERICHIA -COLI DNAA PROTEIN IN REPLICATION OF PLASMID R6K. AUTHOR(S): WU F; GOLDBERG I; FILUTOWICZ M CORPORATE SOURCE: DEP. BACTERIOLOGY, 1550 LINDEN DRIVE, UNIVERSITY WISCONSIN, MADISON, WIS. 53706, USA. SOURCE: NUCLEIC ACIDS RES, (1992) 20 (4), 811-817. CODEN: NARHAD. ISSN: 0305-1048. FILE SEGMENT: BA; OLD LANGUAGE: English ANSWER 10 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS T.4 ACCESSION NUMBER: 1987:145944 BIOSIS DOCUMENT NUMBER: BA83:74994 TITLE: POSITIVE AND NEGATIVE ROLES OF AN INITIATOR PROTEIN AT AN ORIGIN OF REPLICATION. AUTHOR(S): FILUTOWICZ M; MCEACHERN M J; HELINSKI D R CORPORATE SOURCE: DEP. BIOLOGY, UNIV. CALIFORNIA, SAN DIEGO, LA JOLLA, CA 92093. SOURCE: PROC NATL ACAD SCI U S A, (1986 (RECD 1987)) 83 (24), 9645-9649. CODEN: PNASA6. ISSN: 0027-8424. FILE SEGMENT: BA; OLD LANGUAGE: English L4 ANSWER 11 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS ACCESSION NUMBER: 1986:396787 BIOSIS DOCUMENT NUMBER: BA82:82267 TITLE: REPLICATION FROM ONE OF THREE ORIGINS OF THE PLASMID R-6K REQUIRES COUPLED EXPRESSION OF TWO PLASMID-ENCODED PROTEINS. AUTHOR(S): MUKHOPADHYAY P; FILUTOWICZ M; HELINSKI D R CORPORATE SOURCE: DEP. BIOL., UNIV. CALIF SAN DIEGO, LA JOLLA, CA 92093. SOURCE: J BIOL CHEM, (1986) 261 (20), 9534-9539. CODEN: JBCHA3. ISSN: 0021-9258. FILE SEGMENT: BA; OLD LANGUAGE: English ANSWER 12 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS L4ACCESSION NUMBER: 1986:200421 BIOSIS DOCUMENT NUMBER: BA81:91721 TITLE: BINDING OF PURIFIED WILD-TYPE AND MUTANT PI INITIATION PROTEINS TO A REPLICATION ORIGIN REGION OF PLASMID R-6K. AUTHOR(S): FILUTOWICZ M; UHLENHOPP E; HELINSKI D R CORPORATE SOURCE: DEP. BIOL., B-022 UNIV. CALIF., SAN DIEGO, LA JOLLA, CA 92093, USA. SOURCE: J MOL BIOL, (1986) 187 (2), 225-240. CODEN: JMOBAK. ISSN: 0022-2836. FILE SEGMENT: BA; OLD LANGUAGE: English L4 ANSWER 13 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS ACCESSION NUMBER: 1984:209988 BIOSIS DOCUMENT NUMBER: BA77:42972

TITLE: RELEASE OF INITIATION CONTROL BY A MUTATIONAL ALTERATION IN THE R-6K PI PROTEIN REQUIRED FOR PLASMID DNA REPLICATION. AUTHOR(S): STALKER D M; FILUTOWICZ M; HELINSKI D R CORPORATE SOURCE: CALGENE, INC., 1910 FIFTH ST., SUITE F, DAVIS, CA 59616. SOURCE: PROC NATL ACAD SCI U S A, (1983) 80 (18), 5500-5504. CODEN: PNASA6. ISSN: 0027-8424. FILE SEGMENT: BA; OLD LANGUAGE: English L4ANSWER 14 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS ACCESSION NUMBER: 1983:230077 BIOSIS DOCUMENT NUMBER: BA75:80077 TITLE: PLASMID R-6K DNA REPLICATION 3. REGULATORY PROPERTIES OF THE PI INITIATION PROTEIN. AUTHOR(S): SHAFFERMAN A; KOLTER R; STALKER D; HELINSKI D R CORPORATE SOURCE: ISRAEL INST. BIOL. RES. NESS-ZIONA, POB 19, 70450 ISRAEL. SOURCE: J MOL BIOL, (1982) 161 (1), 57-76. CODEN: JMOBAK. ISSN: 0022-2836. FILE SEGMENT: BA; OLD LANGUAGE: English T.4 ANSWER 15 OF 77 BIOSIS COPYRIGHT 2001 BIOSIS ACCESSION NUMBER: 1983:230075 BIOSIS DOCUMENT NUMBER: BA75:80075 TITLE: PLASMID R-6K DNA REPLICATION 1. COMPLETE NUCLEOTIDE SEQUENCE OF AN AUTONOMOUSLY REPLICATING SEGMENT. AUTHOR(S): STALKER D M; KOLTER R; HELINSKI D R CORPORATE SOURCE: DEP. BIOL., UNIV. CALIF., SAN DIEGO, LA JOLLA, CA 92093, USA. SOURCE: J MOL BIOL, (1982) 161 (1), 33-44. CODEN: JMOBAK. ISSN: 0022-2836. FILE SEGMENT: BA; OLD LANGUAGE: English L4ANSWER 16 OF 77 CABA COPYRIGHT 2001 CABI ACCESSION NUMBER: 94:97732 CABA DOCUMENT NUMBER: 940503325 TITLE: New suicide vector for gene replacement in yersiniae and other gram-negative bacteria AUTHOR: Skrzypek, E.; Haddix, P. L.; Plano, G. V.; Straley, S. C. CORPORATE SOURCE: Department of Microbiology and Immunology, Chandler Medical Center, University of Kentucky, Lexington, KY 40536-0084, USA. SOURCE: Plasmid, (1993) Vol. 29, No. 2, pp. 160-163. 14 ref. ISSN: 0147-619X DOCUMENT TYPE: Journal LANGUAGE: English ANSWER 17 OF 77 CAPLUS COPYRIGHT 2001 ACS L4ACCESSION NUMBER: 1997:286408 CAPLUS DOCUMENT NUMBER: 126:260154 TITLE: Plasmids with conditional origin of replication, method for preparing same and use thereof in gene therapy INVENTOR(S): Crouzet, Joel; Soubrier, Fabienne PATENT ASSIGNEE(S): Rhone-Poulenc Rorer S.A., Fr.; Crouzet, Joel; Soubrier, Fabienne SOURCE: PCT Int. Appl., 73 pp. CODEN: PIXXD2 DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE ---- ------_____ WO 9710343 Al 19970320 WO 1996-FR1414 19960913 W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MP NE SN TD TC MR, NE, SN, TD, TG FR 2738842 A1 19970321 FR 1995-10825 19950915 FR 2738842 В1 19971031 ZA 9607640 Α. 19970325 ZA 1996-7640 19960910 CA 2229307 AA 19970320 CA 1996-2229307 19960913 AU 9669924 A1 19970401 AU 1996-69924 19960913 AU 728231 B2 20010104 EP 850310 A1 19980701 EP 1996-931124 19960913 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI BR 9610511 19990126 А BR 1996-10511 19960913 JP 2000501281 Т2 20000208 JP 1997-511716 19960913 NO 9801044 А 19980310 NO 1998-1044 19980310 US 2001014476 A1 20010816 US 1998-43193 19980313 PRIORITY APPLN. INFO.: FR 1995-10825 A 19950915 WO 1996-FR1414 W 19960913 ANSWER 18 OF 77 CAPLUS COPYRIGHT 2001 ACS I.4 ACCESSION NUMBER: 1995:213230 CAPLUS DOCUMENT NUMBER: 122:25257 TITLE: Binding of DnaA protein to a replication enhancer counteracts the inhibition of **plasmid** R6K .gamma. origin replication mediated by elevated levels of R6K .pi. protein AUTHOR(S): Wu, Frank; Levchenko, Igor; Filutowicz, Marcin CORPORATE SOURCE: Dep. Bacteriol., Univ. Wisconsin, Madison, WI, 53706, USA SOURCE: J. Bacteriol. (1994), 176(22), 6795-801 CODEN: JOBAAY; ISSN: 0021-9193 DOCUMENT TYPE: Journal LANGUAGE: English ANSWER 19 OF 77 CAPLUS COPYRIGHT 2001 ACS L4 ACCESSION NUMBER: 1994:184217 CAPLUS DOCUMENT NUMBER: 120:184217 TITLE: Use of the rep technique for allele replacement to construct new Escherichia coli hosts for maintenance of R6K.gamma. origin plasmids at different copy numbers AUTHOR(S): Metcalf, William W.; Jiang, Weihong; Wanner, Barry L. CORPORATE SOURCE: Dep. Biol. Sci., Purdue Univ., West Lafayette, IN, 47907, USA SOURCE: Gene (1994), 138(1-2), 1-7 CODEN: GENED6; ISSN: 0378-1119 DOCUMENT TYPE: Journal LANGUAGE: English L4 ANSWER 20 OF 77 CAPLUS COPYRIGHT 2001 ACS ACCESSION NUMBER: 1993:553267 CAPLUS DOCUMENT NUMBER: 119:153267 TITLE: Autoregulation-deficient mutant of the plasmid R6K-encoded .pi. protein distinguishes between

palindromic and nonpalindromic binding sites AUTHOR(S): York, Dona; Filutowicz, Marcin CORPORATE SOURCE: Dep. Bacteriol., Univ. Wisconsin, Madison, WI, 53706, USA SOURCE: J. Biol. Chem. (1993), 268(29), 21854-61 CODEN: JBCHA3; ISSN: 0021-9258 DOCUMENT TYPE: Journal LANGUAGE: English ANSWER 21 OF 77 CAPLUS COPYRIGHT 2001 ACS L4 ACCESSION NUMBER: 1993:206916 CAPLUS DOCUMENT NUMBER: 118:206916 TITLE: New suicide vector for gene replacement in Yersiniae and other Gram-negative bacteria AUTHOR(S): Skrzypek, Elzbieta; Haddix, Pryce L.; Plano, Gregory V.; Straley, Susan C. CORPORATE SOURCE: Chandler Med. Cent., Univ. Kentucky, Lexington, KY, 40536-0084, USA SOURCE: Plasmid (1993), 29(2), 160-3 CODEN: PLSMDX; ISSN: 0147-619X DOCUMENT TYPE: Journal LANGUAGE: English L4ANSWER 22 OF 77 CAPLUS COPYRIGHT 2001 ACS ACCESSION NUMBER: 1992:189083 CAPLUS DOCUMENT NUMBER: 116:189083 TITLE: Roles of a 106-bp origin enhancer and Escherichia coli DnaA protein in replication of plasmid R6K AUTHOR(S): Wu, Frank; Goldberg, Ilya; Filutowicz, Marcin CORPORATE SOURCE: Dep. Bacteriol., Univ. Wisconsin, Madison, WI, 53706, USA SOURCE: Nucleic Acids Res. (1992), 20(4), 811-17 CODEN: NARHAD; ISSN: 0305-1048 DOCUMENT TYPE: Journal LANGUAGE: English ANSWER 23 OF 77 CAPLUS COPYRIGHT 2001 ACS T.4 ACCESSION NUMBER: 1987:61902 CAPLUS DOCUMENT NUMBER: 106:61902 TITLE: Positive and negative roles of an initiator protein at an origin of **replication** AUTHOR(S): Filutowicz, Marcin; McEachern, Michael J.; Helinski, Donald R. CORPORATE SOURCE: Dep. Biol., Univ. California, San Diego, La Jolla, CA, 92093, USA SOURCE: Proc. Natl. Acad. Sci. U. S. A. (1986), 83(24), 9645-9 CODEN: PNASA6; ISSN: 0027-8424 DOCUMENT TYPE: Journal LANGUAGE: English L4ANSWER 24 OF 77 CAPLUS COPYRIGHT 2001 ACS ACCESSION NUMBER: 1986:123953 CAPLUS DOCUMENT NUMBER: 104:123953 TITLE: Binding of purified wild-type and mutant .pi. initiation proteins to a replication origin region of plasmid R6K AUTHOR(S): Filutowicz, Marcin; Uhlenhopp, Elliott; Helinski, Donald R. CORPORATE SOURCE: Dep. Biol., Univ. California, San Diego, La Jolla, CA, 92093, USA SOURCE: J. Mol. Biol. (1986), 187(2), 225-39 CODEN: JMOBAK; ISSN: 0022-2836 DOCUMENT TYPE: Journal

LANGUAGE: English T.4 ANSWER 25 OF 77 CAPLUS COPYRIGHT 2001 ACS ACCESSION NUMBER: 1983:570460 CAPLUS DOCUMENT NUMBER: 99:170460 TITLE: Release of initiation control by a mutational alteration in the R6K .pi. protein required for plasmid DNA replication AUTHOR(S): Stalker, David M.; Filutowicz, Marcin; Helinski, Donald R. CORPORATE SOURCE: Dep. Biol., Univ. California, San Diego, La Jolla, CA, 92093, USA SOURCE : Proc. Natl. Acad. Sci. U. S. A. (1983), 80(18), 5500-4 CODEN: PNASA6; ISSN: 0027-8424 DOCUMENT TYPE: Journal LANGUAGE: English ANSWER 26 OF 77 CAPLUS COPYRIGHT 2001 ACS L4ACCESSION NUMBER: 1983:28700 CAPLUS DOCUMENT NUMBER: 98:28700 TITLE: Plasmid R6K DNA replication. I. Complete nucleotide sequence of an autonomously replicating segment AUTHOR(S): Stalker, David M.; Kolter, Roberto; Helinski, Donald R. CORPORATE SOURCE: Dep. Biol., Univ. California, La Jolla, CA, 92093, USA SOURCE: J. Mol. Biol. (1982), 161(1), 33-43 CODEN: JMOBAK; ISSN: 0022-2836 DOCUMENT TYPE: Journal LANGUAGE: English ANSWER 27 OF 77 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V. T.4 ACCESSION NUMBER: 1998004937 EMBASE TITLE: Two forms of replication initiator protein: Positive and negative controls. AUTHOR: Wu J.; Sektas M.; Chen D.; Filutowicz M. CORPORATE SOURCE: M. Filutowicz, Department of Bacteriology, E. B. Fred Hall, University of Wisconsin, 1550 Linden Drive, Madison, WI 53706, United States. msfiluto@facstaff.wisc.edu SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1997) 94/25 (13967-13972). Refs: 51 ISSN: 0027-8424 CODEN: PNASA6 COUNTRY: United States DOCUMENT TYPE: Journal; Article FILE SEGMENT: Microbiology 004 LANGUAGE: English SUMMARY LANGUAGE: English T.4 ANSWER 28 OF 77 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V. ACCESSION NUMBER: 94355940 EMBASE DOCUMENT NUMBER: 1994355940 TITLE: Binding of DnaA protein to a **replication** enhancer counteracts the inhibition of plasmid R6K .gamma. origin replication mediated by elevated levels of R6K .pi. protein. AUTHOR: Wu F.; Levchenko I.; Filutowicz M. CORPORATE SOURCE: Dept. of Bacteriology, E. B. Fred Hall, University of Wisconsin, 1550 Linden Dr., Madison, WI 53706, United States SOURCE: Journal of Bacteriology, (1994) 176/22 (6795-6801). ISSN: 0021-9193 CODEN: JOBAAY COUNTRY: United States DOCUMENT TYPE: Journal; Article FILE SEGMENT: 004 Microbiology

029 Clinical Biochemistry LANGUAGE: English SUMMARY LANGUAGE: English T.4 ANSWER 29 OF 77 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V. ACCESSION NUMBER: 94081124 EMBASE DOCUMENT NUMBER: 1994081124 TITLE: Use of the rep technique for allele replacement to construct new Escherichia coli hosts for maintenance of R6K.gamma. origin plasmids at different copy numbers. AUTHOR: Metcalf W.W.; Jiang W.; Wanner B.L. CORPORATE SOURCE: Department of Biological Sciences, Purdue University, West Lafayette, IN 47907, United States SOURCE: Gene, (1994) 138/1-2 (1-7). ISSN: 0378-1119 CODEN: GENED6 COUNTRY: Netherlands DOCUMENT TYPE: Journal; Article FILE SEGMENT: 004 Microbiology LANGUAGE: English SUMMARY LANGUAGE: English ANSWER 30 OF 77 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V. L493320702 EMBASE ACCESSION NUMBER: DOCUMENT NUMBER: 1993320702 TITLE: Autoregulation-deficient mutant of the plasmid R6K-encoded .pi. protein distinguishes between palindromic and nonpalindromic binding sites. AUTHOR: York D.; Filutowicz M. CORPORATE SOURCE: Dept. of Bacteriology, E. B. Fred Hall, University of Wisconsin, 1550 Linden Dr., Madison, WI 53706, United States SOURCE: Journal of Biological Chemistry, (1993) 268/29 (21854-21861). ISSN: 0021-9258 CODEN: JBCHA3 COUNTRY: United States DOCUMENT TYPE: Journal; Article FILE SEGMENT: 029 Clinical Biochemistry LANGUAGE: English SUMMARY LANGUAGE: English ANSWER 31 OF 77 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V. T.4 ACCESSION NUMBER: 93112222 EMBASE DOCUMENT NUMBER: 1993112222 TITLE: New suicide vector for gene replacement in Yersiniae and other Gram-negative bacteria. AUTHOR: Skrzypek E.; Haddix P.L.; Plano G.V.; Straley S.C. CORPORATE SOURCE: Department Microbiology/Immunology, Chandler Medical Center, University of Kentucky, Lexington, KY 40536-0084, United States SOURCE: Plasmid, (1993) 29/2 (160-163). ISSN: 0147-619X CODEN: PLSMDX COUNTRY: United States DOCUMENT TYPE: Journal; Article FILE SEGMENT: 004 Microbiology LANGUAGE: English SUMMARY LANGUAGE: English ANSWER 32 OF 77 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V. L4ACCESSION NUMBER: 92093145 EMBASE DOCUMENT NUMBER: 1992093145 TITLE: Roles of a 106-bp origin enhancer and Escherichia coli DnaA protein in replication of plasmid R6K. AUTHOR: Wu F.; Goldberg I.; Filutowicz M.

CORPORATE SOURCE: Department of Bacteriology, University of Wisconsin, 1550 Linden Drive, Madison, WI 53706, United States SOURCE: Nucleic Acids Research, (1992) 20/4 (811-817). ISSN: 0305-1048 CODEN: NARHAD COUNTRY: United Kingdom DOCUMENT TYPE: Journal; Article FILE SEGMENT: 004 Microbiology LANGUAGE: English SUMMARY LANGUAGE: English ANSWER 33 OF 77 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V. L4ACCESSION NUMBER: 87078168 EMBASE DOCUMENT NUMBER: 1987078168 TITLE: Positive and negative roles of an initiator protein at an origin of replication. AUTHOR: Filutowicz M.; McEachern M.J.; Helinski D.R. Department of Biology, University of California, San Diego, CORPORATE SOURCE: La Jolla, CA 92093, United States SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1986) 83/24 (9645-9649). CODEN: PNASA6 COUNTRY: United States DOCUMENT TYPE: Journal FILE SEGMENT: 022 Human Genetics 004 Microbiology LANGUAGE: English T.4 ANSWER 34 OF 77 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V. ACCESSION NUMBER: 87050100 EMBASE DOCUMENT NUMBER: 1987050100 TITLE: Replication from one of the three origins of the plasmid R6K requires coupled expression of two plasmid-encoded proteins. AUTHOR: Mukhopadhyay P.; Filutowicz M.; Helinski D.R. CORPORATE SOURCE: Department of Biology, University of California at San Diego, La Jolla, CA 92093, United States SOURCE: Journal of Biological Chemistry, (1986) 261/20 (9534-9539). CODEN: JBCHA3 COUNTRY: United States DOCUMENT TYPE: Journal FILE SEGMENT: 004 Microbiology LANGUAGE: English T.4 ANSWER 35 OF 77 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V. ACCESSION NUMBER: 86215723 EMBASE DOCUMENT NUMBER: 1986215723 Binding of purified wild-type and mutant .pi. initiation TTTLE proteins to a **replication** origin region of plasmid R6K. AUTHOR: Filutowicz M.; Uhlenhopp E.; Helinski D.R. Department of Biology, B-022 University of California, San CORPORATE SOURCE: Diego, La Jolla, CA 92093, United States SOURCE: Journal of Molecular Biology, (1986) 187/2 (225-239). CODEN: JMOBAK COUNTRY: United Kingdom DOCUMENT TYPE: Journal FILE SEGMENT: 004 Microbiology 022 Human Genetics LANGUAGE: English ANSWER 36 OF 77 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V. L4 ACCESSION NUMBER: 84017824 EMBASE DOCUMENT NUMBER: 1984017824 TITLE: Release of initiation control by a mutational alteration in

the R6K .pi. protein required for plasmid DNA replication. Stalker D.M.; Filutowicz M.; Helinski D.R. AUTHOR: CORPORATE SOURCE: Department of Biology, University of California at San Diego, La Jolla, CA 92093, United States SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1983) 80/181 (5500-5504). CODEN: PNASA6 COUNTRY: United States DOCUMENT TYPE: Journal FILE SEGMENT: 037 Drug Literature Index 004 Microbiology LANGUAGE: English T.4 ANSWER 37 OF 77 LIFESCI COPYRIGHT 2001 CSA ACCESSION NUMBER: 96:108376 LIFESCI TITLE: Preponderance of Fis-binding sites in the R6K gamma origin and the curious effect of the penicillin resistance marker on **replication** of this origin in the absence of Fis AUTHOR: Wu, F.; Wu, J.; Ehley, J.; Filutowicz, M.* CORPORATE SOURCE: Dep. Bacteriology, E. B. Fred Hall, Univ. Wisconsin-Madison, 1550 Linden Dr., Madison, WI 53706, USA SOURCE: J. BACTERIOL., (1996) vol. 178, no. 16, pp. 4965-4974. ISSN: 0021-9193. DOCUMENT TYPE: Journal FILE SEGMENT: J; G LANGUAGE: English SUMMARY LANGUAGE: English ANSWER 38 OF 77 T.4 LIFESCI COPYRIGHT 2001 CSA ACCESSION NUMBER: 94:48827 LIFESCI TITLE: New suicide vector for gene replacement in Yersiniae and other gram-negative bacteria AUTHOR: Skrzypek, E.; Haddix, P.L.; Plano, G.V.; Straley, S.C.* CORPORATE SOURCE: Dep. Microbiol. and Immunol., Chandler Med. Cent., Univ. Kentucky, Lexington, KY 40536-0084, USA SOURCE: PLASMID, (1993) vol. 29, no. 2, pp. 160-163. ISSN: 0147-619X. DOCUMENT TYPE: Journal FILE SEGMENT: J; G LANGUAGE: English SUMMARY LANGUAGE: English ANSWER 39 OF 77 LIFESCI L4 COPYRIGHT 2001 CSA ACCESSION NUMBER: 94:3729 LIFESCI TITLE: Autoregulation-deficient mutant of the plasmid R6K-encoded pi protein distinguishes between palindromic and nonpalindromic binding sites. AUTHOR: York, D.; Filutowicz, M. CORPORATE SOURCE: Dep. Bacteriol., E. B. Fred Hall, 1550 Linden Dr., Univ. Wisconsin, Madison, WI 53706, USA SOURCE: J. BIOL. CHEM., (1993) vol. 268, no. 29, pp. 21854-21861. ISSN: 0021-9258. DOCUMENT TYPE: Journal FILE SEGMENT: N; J LANGUAGE: English SUMMARY LANGUAGE: English ANSWER 40 OF 77 LIFESCI L4 COPYRIGHT 2001 CSA ACCESSION NUMBER: 93:69792 LIFESCI TITLE: Roles of a 106-bp origin enhancer and Escherichia coli DnaA protein in replication of plasmid R6K.

AUTHOR: Wu, F.; Goldberg, I.; Filutowicz, M. CORPORATE SOURCE: Dep. Bacteriol., 1550 Linden Dr., Univ. Wisconsin, Madison, WI 53706, USA SOURCE: NUCLEIC ACIDS RES., (1992) vol. 20, no. 4, pp. 811-817. DOCUMENT TYPE: Journal FILE SEGMENT: N; J LANGUAGE: English SUMMARY LANGUAGE: English T.4 ANSWER 41 OF 77 LIFESCI COPYRIGHT 2001 CSA ACCESSION NUMBER: 86:66288 LIFESCI TITLE: Positive and negative roles of an initiator protein at an origin of replication. AUTHOR: Filutowicz, M.; McEachern, M.J.; Helinski, D.R. CORPORATE SOURCE: Dep. Biol., Univ. California at San Diego, La Jolla, CA 92093, USA SOURCE: PROC. NATL. ACAD. SCI. USA., (1986) vol. 83, no. 24, pp. 9645-9649. DOCUMENT TYPE: Journal FILE SEGMENT: J; G; N LANGUAGE: English SUMMARY LANGUAGE: English ANSWER 42 OF 77 LIFESCI L4COPYRIGHT 2001 CSA ACCESSION NUMBER: 86:3374 LIFESCI TITLE: Binding of purified wild-type and mutant pi initiation proteins to a replication origin region of plasmid R6K. AUTHOR: Filutowicz, M.; Uhlenhopp, E.; Helinski, D.R. CORPORATE SOURCE: Dep. Biol., B-022, Univ. California at San Diego, La Jolla, CA 92093, USA SOURCE: J. MOL. BIOL., (1986) vol. 187, no. 2, pp. 225-239. DOCUMENT TYPE: Journal FILE SEGMENT: J; N; G LANGUAGE: English SUMMARY LANGUAGE: English ANSWER 43 OF 77 LIFESCI L4COPYRIGHT 2001 CSA ACCESSION NUMBER: 83:49097 LIFESCI TITLE: Release of initiation control by a mutational alteration in the R6K pi protein required for plasmid DNA replication. AUTHOR: Stalker, D.M.; Filutowicz, M.; Helinski, D.R. CORPORATE SOURCE: Calgene, Inc., 1910 Fifth St., Suite F, Davis, CA 95616, USA SOURCE: PROC. NATL. ACAD. SCI. USA., (1983) vol. 80, no. 18, pp. 5500-5504. DOCUMENT TYPE: Journal FILE SEGMENT: N; G; J LANGUAGE: English SUMMARY LANGUAGE: English T.4 ANSWER 44 OF 77 MEDLINE ACCESSION NUMBER: 1998054344 MEDLINE DOCUMENT NUMBER: 98054344 PubMed ID: 9391136 TITLE: Two forms of replication initiator protein: positive and negative controls. AUTHOR · Wu J; Sektas M; Chen D; Filutowicz M CORPORATE SOURCE: Department of Bacteriology, University of Wisconsin, Madison, WI 53706, USA. CONTRACT NUMBER: GM39715 (NIGMS) GM40314 (NIGMS) SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1997 Dec 9) 94 (25) 13967-72.

Journal code: PV3; 7505876. ISSN: 0027-8424. PUB. COUNTRY: United States Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English FILE SEGMENT: Priority Journals ENTRY MONTH: 199801 ENTRY DATE: Entered STN: 19980129 Last Updated on STN: 19980129 Entered Medline: 19980115 L4 ANSWER 45 OF 77 MEDLINE ACCESSION NUMBER: 95050245 MEDLINE DOCUMENT NUMBER: 95050245 PubMed ID: 7961437 TITLE: Binding of DnaA protein to a replication enhancer counteracts the inhibition of plasmid R6K gamma origin replication mediated by elevated levels of **R6K** pi protein. AUTHOR: Wu F; Levchenko I; Filutowicz M CORPORATE SOURCE: Department of Bacteriology, University of Wisconsin--Madison 53706. CONTRACT NUMBER: GM40314 (NIGMS) SOURCE: JOURNAL OF BACTERIOLOGY, (1994 Nov) 176 (22) 6795-801. Journal code: HH3; 2985120R. ISSN: 0021-9193. PUB. COUNTRY: United States Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English FILE SEGMENT: Priority Journals ENTRY MONTH: 199412 ENTRY DATE: Entered STN: 19950110 Last Updated on STN: 19960129 Entered Medline: 19941216 T.4 ANSWER 46 OF 77 MEDITNE ACCESSION NUMBER: 94171016 MEDLINE DOCUMENT NUMBER: 94171016 PubMed ID: 8125283 TITLE: Use of the rep technique for allele replacement to construct new Escherichia coli hosts for maintenance of **R6K** gamma origin plasmids at different copy numbers. AUTHOR: Metcalf W W; Jiang W; Wanner B L CORPORATE SOURCE: Department of Biological Sciences, Purdue University, West Lafayette, IN 47907. SOURCE: GENE, (1994 Jan 28) 138 (1-2) 1-7. Journal code: FOP; 7706761. ISSN: 0378-1119. PUB. COUNTRY: Netherlands Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English FILE SEGMENT: Priority Journals ENTRY MONTH: 199404 ENTRY DATE: Entered STN: 19940420 Last Updated on STN: 19950307 Entered Medline: 19940414 T.4 ANSWER 47 OF 77 MEDLINE ACCESSION NUMBER: 94012772 MEDLINE DOCUMENT NUMBER: 94012772 PubMed ID: 8408040 TITLE: Autoregulation-deficient mutant of the plasmid R6K-encoded pi protein distinguishes between palindromic and nonpalindromic binding sites. AUTHOR: York D; Filutowicz M CORPORATE SOURCE: Department of Bacteriology, University of Wisconsin, Madison 53706. CONTRACT NUMBER: GM 40314 (NIGMS) SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1993 Oct 15) 268 (29)

21854-61. Journal code: HIV; 2985121R. ISSN: 0021-9258. PUB. COUNTRY: United States Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English FILE SEGMENT: Priority Journals ENTRY MONTH: 199311 ENTRY DATE: Entered STN: 19940117 Last Updated on STN: 19970203 Entered Medline: 19931118 T.4 ANSWER 48 OF 77 MEDLINE ACCESSION NUMBER: 93226707 MEDLINE DOCUMENT NUMBER: 93226707 PubMed ID: 8469722 TITLE: New suicide vector for gene replacement in yersiniae and other gram-negative bacteria. AUTHOR: Skrzypek E; Haddix P L; Plano G V; Straley S C Department of Microbiology and Immunology, Chandler Medical CORPORATE SOURCE: Center, University of Kentucky, Lexington 40536-0084. CONTRACT NUMBER: A09509 (NIAID) AI08525 (NIAID) AI21017 + SOURCE: PLASMID, (1993 Mar) 29 (2) 160-3. Journal code: P8P; 7802221. ISSN: 0147-619X. United States PUB. COUNTRY: Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English FILE SEGMENT: Priority Journals ENTRY MONTH: 199305 ENTRY DATE: Entered STN: 19930521 Last Updated on STN: 19930521 Entered Medline: 19930507 L4ANSWER 49 OF 77 MEDLINE ACCESSION NUMBER: 92331952 MEDLINE DOCUMENT NUMBER: 92331952 PubMed ID: 1628846 TITLE: Translational options for the pir gene of plasmid R6K: multiple forms of the replication initiator protein pi. AUTHOR: York D; Ivanov V; Gan J; Filutowicz M CORPORATE SOURCE: Department of Bacteriology, University of Wisconsin, Madison 53706. CONTRACT NUMBER: GM40314 (NIGMS) SOURCE: GENE, (1992 Jul 1) 116 (1) 7-12. Journal, code: FOP; 7706761. ISSN: 0378-1119. PUB. COUNTRY: Netherlands Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English FILE SEGMENT: Priority Journals ENTRY MONTH: 199208 ENTRY DATE: Entered STN: 19920904 Last Updated on STN: 19920904 Entered Medline: 19920817 T.4 ANSWER 50 OF 77 MEDLINE ACCESSION NUMBER: 92178977 MEDLINE DOCUMENT NUMBER: 92178977 PubMed ID: 1627205 TITLE: Roles of a 106-bp origin enhancer and Escherichia coli DnaA protein in replication of plasmid R6K. AUTHOR: Wu F; Goldberg I; Filutowicz M CORPORATE SOURCE: Department of Bacteriology, University of Wisconsin, Madison 53706.

CONTRACT NUMBER: GM40314 (NIGMS) NUCLEIC ACIDS RESEARCH, (1992 Feb 25) 20 (4) 811-7. SOURCE: Journal code: O8L; 0411011. ISSN: 0305-1048. PUB. COUNTRY: ENGLAND: United Kingdom Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English FILE SEGMENT: Priority Journals ENTRY MONTH: 199204 Entered STN: 19920424 ENTRY DATE: Last Updated on STN: 19970203 Entered Medline: 19920406 T.4 ANSWER 51 OF 77 MEDLINE ACCESSION NUMBER: 87092304 MEDLINE DOCUMENT NUMBER: 87092304 PubMed ID: 3540947 TITLE: Positive and negative roles of an initiator protein at an origin of replication. AUTHOR: Filutowicz M; McEachern M J; Helinski D R CONTRACT NUMBER: AI-07194 (NIAID) SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1986 Dec) 83 (24) 9645-9. Journal code: PV3; 7505876. ISSN: 0027-8424. PUB. COUNTRY: United States Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English FILE SEGMENT: Priority Journals ENTRY MONTH: 198702 ENTRY DATE: Entered STN: 19900302 Last Updated on STN: 19970203 Entered Medline: 19870206 T.4 ANSWER 52 OF 77 MEDLINE ACCESSION NUMBER: 86250913 MEDLINE DOCUMENT NUMBER: 86250913 PubMed ID: 3013894 TITLE: Replication from one of the three origins of the plasmid R6K requires coupled expression of two plasmid-encoded proteins. AUTHOR: Mukhopadhyay P; Filutowicz M; Helinski D R CONTRACT NUMBER: AI-07194 (NIAID) SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1986 Jul 15) 261 (20) 9534-9. Journal code: HIV; 2985121R. ISSN: 0021-9258. PUB. COUNTRY: United States Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English FILE SEGMENT: Priority Journals ENTRY MONTH: 198608 ENTRY DATE: Entered STN: 19900321 Last Updated on STN: 19990129 Entered Medline: 19860813 L4ANSWER 53 OF 77 MEDLINE ACCESSION NUMBER: 86200208 MEDLINE DOCUMENT NUMBER: 86200208 PubMed ID: 3009827 TITLE: Binding of purified wild-type and mutant pi initiation proteins to a **replication** origin region of plasmid R6K. AUTHOR: Filutowicz M; Uhlenhopp E; Helinski D R CONTRACT NUMBER: A1-07194 SOURCE: JOURNAL OF MOLECULAR BIOLOGY, (1986 Jan 20) 187 (2) 225-39. Journal code: J6V; 2985088R. ISSN: 0022-2836. PUB. COUNTRY: ENGLAND: United Kingdom Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English

FILE SEGMENT: Priority Journals ENTRY MONTH: 198606 ENTRY DATE: Entered STN: 19900321 Last Updated on STN: 19990129 Entered Medline: 19860613 ANSWER 54 OF 77 T.4 MEDLINE ACCESSION NUMBER: 86081740 MEDLINE DOCUMENT NUMBER: 86081740 PubMed ID: 3000771 TITLE: A single amino acid alteration in the initiation protein is responsible for the DNA overproduction phenotype of copy number mutants of plasmid R6K. AUTHOR: Inuzuka M; Wada Y SOURCE: EMBO JOURNAL, (1985 Sep) 4 (9) 2301-7. Journal code: EMB; 8208664. ISSN: 0261-4189. PUB. COUNTRY: ENGLAND: United Kingdom Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English FILE SEGMENT: Priority Journals OTHER SOURCE: GENBANK-Y00768 ENTRY MONTH: 198602 ENTRY DATE: Entered STN: 19900321 Last Updated on STN: 19980206 Entered Medline: 19860207 L4 ANSWER 55 OF 77 MEDLINE ACCESSION NUMBER: 83299999 MEDLINE DOCUMENT NUMBER: 83299999 PubMed ID: 6310578 TITLE: Release of initiation control by a mutational alteration in the R6K pi protein required for plasmid DNA replication. AUTHOR: Stalker D M; Filutowicz M; Helinski D R CONTRACT NUMBER: AL-07194 SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1983 Sep) 80 (18) 5500-4. Journal code: PV3; 7505876. ISSN: 0027-8424. PUB. COUNTRY: United States Journal; Article; (JOURNAL ARTICLE) LANGUAGE: English FILE SEGMENT: Priority Journals ENTRY MONTH: 198310 ENTRY DATE: Entered STN: 19900319 Last Updated on STN: 19970203 Entered Medline: 19831021 1.4 ANSWER 56 OF 77 SCISEARCH COPYRIGHT 2001 ISI (R) ACCESSION NUMBER: 1998:4007 SCISEARCH THE GENUINE ARTICLE: YK825 TITLE: Two forms of **replication** initiator protein: Positive and negative controls AUTHOR: Wu J Z; Sektas M; Chen D Z; Filutowicz M (Reprint) CORPORATE SOURCE: UNIV WISCONSIN, DEPT BACTERIOL, EB FRED HALL, 1550 LINDEN DR, MADISON, WI 53706 (Reprint); UNIV WISCONSIN, DEPT BACTERIOL, MADISON, WI 53706; UNIV WISCONSIN, MCARDLE LAB CANC RES, MADISON, WI 53706 COUNTRY OF AUTHOR: USA SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (9 DEC 1997) Vol. 94, No. 25, pp. 13967-13972. Publisher: NATL ACAD SCIENCES, 2101 CONSTITUTION AVE NW, WASHINGTON, DC 20418. ISSN: 0027-8424. DOCUMENT TYPE: Article; Journal FILE SEGMENT: LIFE

LANGUAGE: English **REFERENCE COUNT:** 51 *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS* ANSWER 57 OF 77 SCISEARCH COPYRIGHT 2001 ISI (R) L4 ACCESSION NUMBER: 94:728792 SCISEARCH THE GENUINE ARTICLE: PQ984 TITLE: BINDING OF DNAA PROTEIN TO A REPLICATION ENHANCER COUNTERACTS THE INHIBITION OF **PLASMID** R6K GAMMA-ORIGIN REPLICATION MEDIATED BY ELEVATED LEVELS OF R6K PI-PROTEIN AUTHOR: WU F; LEVCHENKO I; FILUTOWICZ M (Reprint) CORPORATE SOURCE: UNIV WISCONSIN, DEPT BACTERIOL, EB FRED HALL, 1550 LINDEN DR, MADISON, WI, 53706 (Reprint); UNIV WISCONSIN, DEPT BACTERIOL, MADISON, WI, 53706 COUNTRY OF AUTHOR: USA SOURCE: JOURNAL OF BACTERIOLOGY, (NOV 1994) Vol. 176, No. 22, pp. 6795-6801. ISSN: 0021-9193. DOCUMENT TYPE: Article; Journal FILE SEGMENT: LIFE LANGUAGE: ENGLISH **REFERENCE COUNT:** 58 *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS* L4ANSWER 58 OF 77 SCISEARCH COPYRIGHT 2001 ISI (R) ACCESSION NUMBER: 94:186223 SCISEARCH THE GENUINE ARTICLE: NA661 TITLE: USE OF THE REP TECHNIQUE FOR ALLELE REPLACEMENT TO CONSTRUCT NEW ESCHERICHIA-COLI HOSTS FOR MAINTENANCE OF R6K-GAMMA ORIGIN PLASMIDS AT DIFFERENT COPY NUMBERS AUTHOR: METCALF W W; JIANG W H; WANNER B L (Reprint) CORPORATE SOURCE: PURDUE UNIV, DEPT BIOL SCI, W LAFAYETTE, IN, 47907 (Reprint); PURDUE UNIV, DEPT BIOL SCI, W LAFAYETTE, IN, 47907 COUNTRY OF AUTHOR: USA SOURCE: GENE, (28 JAN 1994) Vol. 138, No. 1-2, pp. 1-7. ISSN: 0378-1119. DOCUMENT TYPE: Article; Journal FILE SEGMENT: LIFE LANGUAGE: ENGLISH REFERENCE COUNT: 31 *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS* L4 ANSWER 59 OF 77 SCISEARCH COPYRIGHT 2001 ISI (R) ACCESSION NUMBER: 93:647948 SCISEARCH THE GENUINE ARTICLE: MC809 TITLE: AUTOREGULATION-DEFICIENT MUTANT OF THE PLASMID R6K-ENCODED PI-PROTEIN DISTINGUISHES BETWEEN PALINDROMIC AND NONPALINDROMIC BINDING-SITES AUTHOR: YORK D; FILUTOWICZ M (Reprint) CORPORATE SOURCE: UNIV WISCONSIN, DEPT BACTERIOL, EB FRED HALL, 1550 LINDEN DR, MADISON, WI, 53706 COUNTRY OF AUTHOR: USA SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (15 OCT 1993) Vol. 268, No. 29, pp. 21854-21861. ISSN: 0021-9258. DOCUMENT TYPE: Article; Journal FILE SEGMENT: LIFE LANGUAGE: ENGLISH **REFERENCE COUNT:** 41 *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

ANSWER 60 OF 77 SCISEARCH COPYRIGHT 2001 ISI (R) T.4 ACCESSION NUMBER: 92:719273 SCISEARCH THE GENUINE ARTICLE: KB098 TITLE: A SMALL PLASMID FOR RECOMBINATION-BASED SCREENING AUTHOR: HANZLIK A J; OSEMLAKHANZLIK M M; KURNIT D M (Reprint) CORPORATE SOURCE: UNIV MICHIGAN, MED CTR, HOWARD HUGHES MED INST, DEPT PEDIAT, 1150 W MED CTR DR, ANN ARBOR, MI, 48109; UNIV MICHIGAN, MED CTR, HOWARD HUGHES MED INST, DEPT HUMAN GENET, ANN ARBOR, MI, 48109 COUNTRY OF AUTHOR: USA SOURCE: GENE, (01 DEC 1992) Vol. 122, No. 1, pp. 171-174. ISSN: 0378-1119. DOCUMENT TYPE: Note; Journal FILE SEGMENT: LIFE LANGUAGE: ENGLISH **REFERENCE COUNT:** 15 *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS* L4ANSWER 61 OF 77 SCISEARCH COPYRIGHT 2001 ISI (R) ACCESSION NUMBER: 92:435139 SCISEARCH THE GENUINE ARTICLE: JD840 TITLE: TRANSLATION OPTIONS FOR THE PIR GENE OF PLASMID R6K - MULTIPLE FORMS OF THE REPLICATION INITIATOR PROTEIN-PI AUTHOR: YORK D (Reprint); IVANOV V; GAN J; FILUTOWICZ M CORPORATE SOURCE: UNIV WISCONSIN, DEPT BACTERIOL, 1550 LINDEN DR, MADISON, WI, 53706 (Reprint) COUNTRY OF AUTHOR: USA SOURCE: GENE, (01 JUL 1992) Vol. 116, No. 1, pp. 7-12. ISSN: 0378-1119. DOCUMENT TYPE: Article; Journal FILE SEGMENT: LIFE LANGUAGE: ENGLISH REFERENCE COUNT: 29 *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS* L4ANSWER 62 OF 77 SCISEARCH COPYRIGHT 2001 ISI (R) ACCESSION NUMBER: 92:147913 SCISEARCH THE GENUINE ARTICLE: HG350 TITLE: ROLES OF A 106-BP ORIGIN ENHANCER AND ESCHERICHIA -COLI DNAA PROTEIN IN REPLICATION OF PLASMID R6K AUTHOR: WU F; GOLDBERG I; FILUTOWICZ M (Reprint) UNIV WISCONSIN, DEPT BACTERIOL, 1550 LINDEN DR, MADISON, CORPORATE SOURCE: WI, 53706 COUNTRY OF AUTHOR: USA SOURCE: NUCLEIC ACIDS RESEARCH, (25 FEB 1992) Vol. 20, No. 4, pp. 811-817. ISSN: 0305-1048. DOCUMENT TYPE: Article; Journal FILE SEGMENT: LIFE LANGUAGE: ENGLISH REFERENCE COUNT: 55 *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS* T.4 ANSWER 63 OF 77 USPATFULL ACCESSION NUMBER: 2001:134027 USPATFULL TITLE: CIRCULAR DNA MOLECULE WITH CONDITIONAL ORIGIN OF REPLICATION, METHOD FOR PREPARING THE SAME AND USE THEREOF IN GENE THERAPY INVENTOR(S): CROUZET, JOEL, SCEAUX, France SOUBRIER, FABIENNE, THIAIS, France

NUMBER KIND DATE US 2001014476 A1 20010816 US 1998-43193 A1 19980313 PATENT INFORMATION: APPLICATION INFO .: (9) WO 1996-FR1414 19960913 None PCT 371 date NUMBER DATE PRIORITY INFORMATION: FR 1995-10825 199509<u>1</u>5 DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION LEGAL REPRESENTATIVE: FINNEGAN, HENDERSON, FARABOW, GARRETT &, DUNNER, LLP, 1300 I STREET NW, WASHINGTON, DC, 200053315 37 NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1 10 Drawing Page(s) NUMBER OF DRAWINGS: LINE COUNT: 1788 CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 64 OF 77 USPATFULL L4ACCESSION NUMBER: 2001:102385 USPATFULL TITLE: Attenuated auxotrophic microorganisms having a combination of non-attenuating mutations and method for making same INVENTOR(S): Mekalanos, John J., Cambridge, MA, United States Klose, Karl E., Newton, MA, United States PATENT ASSIGNEE(S): President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation) NUMBER KIND DATE ----- -----
 PATENT INFORMATION:
 US 6254874
 B1
 20010703

 APPLICATION INFO.:
 US 1995-421207
 19950413
 19950413 (8) DOCUMENT TYPE: Utility FILE SEGMENT: GRANTED PRIMARY EXAMINER: Housel, James C. ASSISTANT EXAMINER: Ryan, V. LEGAL REPRESENTATIVE: Hogan & Hartson LLP, Petersen, Steven C. NUMBER OF CLAIMS: 57 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s) LINE COUNT: 1602 ANSWER 65 OF 77 USPATFULL T.4 ACCESSION NUMBER: 2000:7170 USPATFULL TITLE: Identification of genes INVENTOR(S): Holden, David William, London, United Kingdom PATENT ASSIGNEE(S): Imperial College Innovations Limited, London, United Kingdom (non-U.S. corporation) NUMBER KIND DATE PATENT INFORMATION: US 6015669 20000118 US 1997-871355 19970609 · (8) APPLICATION INFO .: Continuation of Ser. No. WO 1995-GB2875, filed on 11 RELATED APPLN. INFO .: Dec 1995 NUMBER DATE GB1994-2492119941209GB1995-188119950131GB1995-923919950505WO1995-GB287519951211 PRIORITY INFORMATION:

DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Marschel, Ardin H. ASSISTANT EXAMINER: Whisenant, Ethan LEGAL REPRESENTATIVE: Arnall Golden & Gregory, LLP NUMBER OF CLAIMS: 26 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 116 Drawing Figure(s); 112 Drawing Page(s) LINE COUNT: 7898 CAS INDEXING IS AVAILABLE FOR THIS PATENT. L4ANSWER 66 OF 77 USPATFULL ACCESSION NUMBER: 2000:1744 USPATFULL TITLE: Salmonella virulence genes INVENTOR(S): Miller, III, Samuel I., Brookline, MA, United States Mekalanos, John J., Cambridge, MA, United States PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MA, United States (U.S. corporation) President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation) NUMBER KIND DATE ----- ----- -----PATENT INFORMATION: US 6010901 US 1995-475749 20000104 APPLICATION INFO .: 19950607 (8) RELATED APPLN. INFO.: Division of Ser. No. US 1993-90526, filed on 9 Jul 1993, now patented, Pat. No. US 5599537 which is a continuation-in-part of Ser. No. US 1990-629602, filed on 18 Dec 1990, now abandoned DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Elliott, George C. ASSISTANT EXAMINER: Schwartzman, Robert LEGAL REPRESENTATIVE: Fish & Richardson P.C. NUMBER OF CLAIMS: 25 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 6 Drawing Figure(s); 4 Drawing Page(s) LINE COUNT: 2435 CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 67 OF 77 USPATFULL L4ACCESSION NUMBER: 1999:146344 USPATFULL TITLE: Bacterial catabolism of chitin INVENTOR(S): Roseman, Saul, Baltimore, MD, United States Bassler, Bonnie, Princeton, NJ, United States Keyhani, Nemat O., Balitmore, MD, United States Chitlaru, Edith, Rehovot, Israel Yu, Charles, Lutherville, MD, United States PATENT ASSIGNEE(S): The Johns Hopkins University, Baltimore, MD, United States (U.S. corporation) NUMBER KIND DATE US 5985644 19991116 US 1996-600452 19960213 PATENT INFORMATION: APPLICATION INFO .: (8) RELATED APPLN. INFO .: Continuation-in-part of Ser. No. US 1995-386727, filed on 13 Feb 1995 DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Wax, Robert A. ASSISTANT EXAMINER: Saidha, Tekchand LEGAL REPRESENTATIVE: Buckley, Linda M., Buchanan, Robert L.Dike, Bronstein, Roberts & Cushman, LLP NUMBER OF CLAIMS: 6

EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 7 Drawing Figure(s); 7 Drawing Page(s) LINE COUNT: 2487 CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 68 OF 77 USPATFULL L4ACCESSION NUMBER: 1999:27395 USPATFULL TITLE: Identification of genes INVENTOR(S): Holden, David William, London, United Kingdom RPMS Technology Limited, London, United Kingdom PATENT ASSIGNEE(S): (non-U.S. corporation) NUMBER KIND DATE PATENT INFORMATION: US 5876931 WO 9617951 19990302 19760613 APPLICATION INFO .: US 1997-637759 19970719 (8) WO 1995-GB2875 19951211 19970719 PCT 371 date 19970719 PCT 102(e) date NUMBER DATE PRIORITY INFORMATION: GB 1994-24921 19941209 GB 1995-1881 19950131 GB 1995-9239 19950505 DOCUMENT TYPE: Utility FILE SEGMENT: Granted ASSISTANT EXAMINER: Degen, Nancy ASSISTANT EXAMINER: Schwartzman, Robert LEGAL REPRESENTATIVE: Arnall Goldon C. Arnall Golden & Gregory LLP NUMBER OF CLAIMS: 31 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 119 Drawing Figure(s); 112 Drawing Page(s) LINE COUNT: 6165 CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 69 OF 77 USPATFULL L4ACCESSION NUMBER: 1998:159741 USPATFULL TITLE: Rapid subcloning using site-specific recombination INVENTOR(S): Elledge, Stephen J., Houston, TX, United States Liu, Qinghua, Houston, TX, United States PATENT ASSIGNEE(S): Baylor College of Medicine, United States (U.S. corporation) NUMBER KIND DATE US 5851808 19981222 US 1997-864224 19970228 (8) PATENT INFORMATION: APPLICATION INFO.: US 1997-864224 DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Railey, II, Johnny F. LEGAL REPRESENTATIVE: Medlen & Carroll, LLP NUMBER OF CLAIMS: 24 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 16 Drawing Figure(s); 11 Drawing Page(s) LINE COUNT: 2369 CAS INDEXING IS AVAILABLE FOR THIS PATENT. L4ANSWER 70 OF 77 USPATFULL ACCESSION NUMBER: 1998:150449 USPATFULL TITLE: Salmonella vaccines INVENTOR(S): Miller, Samuel I., Seattle, WA, United States Mekalanos, John J., Cambridge, MA, United States

PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MS, United States (U.S. corporation) President and Fellows of Harvard College, Cambridge, MS, United States (U.S. corporation) NUMBER KIND DATE ----- ------PATENT INFORMATION: US 5843426 19981201 US 1995-565861 19951201 (8) APPLICATION INFO.: RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-271354, filed on 6 Jul 1994, now patented, Pat. No. US 5695983 which is a continuation-in-part of Ser. No. US 1993-90526, filed on 9 Jul 1993, now patented, Pat. No. US 5599537 which is a continuation-in-part of Ser. No. US 1990-629602, filed on 18 Dec 1990, now abandoned DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: LeGuvader, John L. ASSISTANT EXAMINER: Brusca, John S. LEGAL REPRESENTATIVE: Fish & Richardson P.C. NUMBER OF CLAIMS: 1 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 25 Drawing Figure(s); 20 Drawing Page(s) LINE COUNT: 4505 CAS INDEXING IS AVAILABLE FOR THIS PATENT. L4 ANSWER 71 OF 77 USPATFULL ACCESSION NUMBER: 1998:95423 USPATFULL TITLE: Bacterial catabolism of chitin INVENTOR(S): Roseman, Saul, Baltimore, MD, United States Bassler, Bonnie, Princeton, NJ, United States Keyhani, Nemat O., Baltimore, MD, United States Chitlaru, Edith, Rehovot, Israel Rowe, Chris, Timonium, MD, United States Yu, Charles, Lutherville, MD, United States PATENT ASSIGNEE(S): The Johns Hopkins University, Baltimore, MD, United States (U.S. corporation) NUMBER KIND DATE ----- -----PATENT INFORMATION: US 5792647 APPLICATION INFO.: US 1995-386727 US 5792647 19980811 US 1995-386727 19950213 (8) APPLICATION INFO .: DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Prouty, Rebecca E. LEGAL REPRESENTATIVE: Fish & Richardson, P.C. NUMBER OF CLAIMS: 4 EXEMPLARY CLAIM: 3 NUMBER OF DRAWINGS: 7 Drawing Figure(s); 7 Drawing Page(s) LINE COUNT: 1952 CAS INDEXING IS AVAILABLE FOR THIS PATENT. L4ANSWER 72 OF 77 USPATFULL ACCESSION NUMBER: 1998:30907 USPATFULL TITLE: Salmonella virulence genes INVENTOR(S): Miller, III, Samuel I., Brookline, MA, United States Mekalanos, John J., Cambridge, MA, United States PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MA, United States (U.S. corporation) President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation) NUMBER KIND DATE ------- ------

 PATENT INFORMATION:
 US 5731196
 19980324

 APPLICATION INFO.:
 US 1995-476100
 19951006 (8)

 RELATED APPLN. INFO.:
 Division of Ser. No. US 1993-90526, filed on 9 Jul 1993
 which is a continuation-in-part of Ser. No. US 1990-629602, filed on 18 Dec 1990, now abandoned DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: ASSISTANT EXAMINER: Degen, Nancy Latimer, Matthew LEGAL REPRESENTATIVE: Fish & Richardson P.C. NUMBER OF CLAIMS: 14 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 6 Drawing Figure(s); 4 Drawing Page(s) LINE COUNT: 2399 CAS INDEXING IS AVAILABLE FOR THIS PATENT. L4 ANSWER 73 OF 77 USPATFULL ACCESSION NUMBER: 97:115147 USPATFULL TITLE: Salmonella vaccines INVENTOR(S): Miller, Samuel I., Brookline, MA, United States Mekalanos, John J., Cambridge, MA, United States PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MA, United States (U.S. corporation) President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation) NUMBER KIND DATE PATENT INFORMATION:US 569598319971209APPLICATION INFO.:US 1994-27135419940706 (8) RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-90526, filed on 9 Jul 1993, now patented, Pat. No. US 5599537 which is a continuation-in-part of Ser. No. US 1990-629602, filed on 18 Dec 1990, now abandoned DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Ketter, James ASSISTANT EXAMINER: Brusca, John S. LEGAL REPRESENTATIVE: Fish & Richardson P.C. NUMBER OF CLAIMS: 5 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 25 Drawing Figure(s); 20 Drawing Page(s) LINE COUNT: 3780 CAS INDEXING IS AVAILABLE FOR THIS PATENT. L4ANSWER 74 OF 77 USPATFULL ACCESSION NUMBER: 97:91398 USPATFULL TITLE: Salmonella virulence genes INVENTOR(S): Miller, III, Samuel I., Brookline, MA, United States Mekalanos, John J., Cambridge, MA, United States PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MA, United States (U.S. corporation) President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation) NUMBER KIND DATE ----- -----PATENT INFORMATION: US 5674736 US 5674736 US 1995-486719 19971007 APPLICATION INFO .: 19950607 (8) RELATED APPLN. INFO.: Division of Ser. No. US 1993-90526, filed on 9 Jul 1993, now patented, Pat. No. US 5599537 which is a continuation-in-part of Ser. No. US 1990-629602, filed on 18 Dec 1990, now abandoned DOCUMENT TYPE: Utility

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FILE SEGMENT: Granted PRIMARY EXAMINER: Degen, Nancy LEGAL REPRESENTATIVE: Fish & Richardson P.C. NUMBER OF CLAIMS: 11 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 6 Drawing Figure(s); 4 Drawing Page(s) LINE COUNT: 2367 CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 75 OF 77 USPATFULL T.4 ACCESSION NUMBER: 97:91386 USPATFULL TITLE: Salmonella virulence genes INVENTOR(S): Miller, III, Samuel I., Brookline, MA, United States Mekalanos, John J., Cambridge, MA, United States PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MA, United States (U.S. corporation) President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation) NUMBER KIND DATE ------ ------PATENT INFORMATION: US 5674724 19971007 US 1995-486715 19950607 APPLICATION INFO .: RELATED APPLN. INFO .: Division of Ser. No. US 1993-90526, filed on 9 Jul (8) 1993, now patented, Pat. No. US 5599537 which is a continuation-in-part of Ser. No. US 1990-629602, filed on 18 Dec 1990, now abandoned DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Degen, Nancy LEGAL REPRESENTATIVE: Fish & Richardson P.C. NUMBER OF CLAIMS: 2 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 5 Drawing Figure(s); 4 Drawing Page(s) LINE COUNT: 2334 CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 76 OF 77 USPATFULL L4 ACCESSION NUMBER: 97:9774 USPATFULL TITLE: Salmonella virulence genes INVENTOR(S): Miller, III, Samuel I., Brookline, MA, United States Mekalanos, John J., Cambridge, MA, United States PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MA, United States (U.S. corporation) President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation) NUMBER KIND DATE ----- -----PATENT INFORMATION: US 5599537 US 1993-90526 19970204 APPLICATION INFO .: 19930709 (8) RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1990-629602, filed on 18 Dec 1990, now abandoned DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Fleisher, Mindy ASSISTANT EXAMINER: Carter, Philip W. LEGAL REPRESENTATIVE: Fish & Richardson P.C. NUMBER OF CLAIMS: 2 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 6 Drawing Figure(s); 4 Drawing Page(s) LINE COUNT: 2312 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4ANSWER 77 OF 77 USPATFULL ACCESSION NUMBER: 95:64835 USPATFULL TITLE: In vivo selection of microbial virulence genes INVENTOR(S): Mahan, Michael J., West Roxbury, MA, United States Mekalanos, John J., Cambridge, MA, United States Slauch, James M., Natick, MA, United States PATENT ASSIGNEE(S): President and Fellows of Harvard College, Cambridge, MA, United States (U.S. corporation) NUMBER KIND DATE ----- -----PATENT INFORMATION: US 5434065 19950718 APPLICATION INFO.: US 1993-58299 19930506 (8) DOCUMENT TYPE: Utility FILE SEGMENT: Granted PRIMARY EXAMINER: Mosher, Mary E. LEGAL REPRESENTATIVE: Petersen, Steven C.Chrisman, Bynum & Johnson NUMBER OF CLAIMS: 21 EXEMPLARY CLAIM: 1 NUMBER OF DRAWINGS: 8 Drawing Figure(s); 7 Drawing Page(s)

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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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LINE COUNT:

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